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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kenneth J. Taylor

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EXAMINER

GORTAYO, DANGELINO N

ART UNIT

PAPER NUMBER

2168

MAIL DATE

DELIVERY MODE

05/27/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/662,082	Applicant(s) TAYLOR, KENNETH J.	
	Examiner DANGELINO N. GORTAYO	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In the amendment filed on 2/17/2010, claims 7, 10, and 11 have been amended.
The currently pending claims considered below are Claims 7-11.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (US Publication 2002/0107877 a1) in view of Bamford et al. ("Bamford" US Patent 5,449,367)

As per claim 7, Whiting teaches "In a computer system having a plurality of nodes, each node having access to a shared parallel server database and also having local storage, a method of performing an operation to completely rewrite said shared parallel server database" (see Abstract and paragraphs 0013, 0014)

comprising: providing a log in local storage for each said node, said log including information regarding data in said shared parallel server database; (paragraphs 0038, 0039, 0052, 0090, wherein a backup directory file contains data about the backup data files and is stored in a node containing information for data in a shared database)

selecting at least one node of said plurality of nodes to perform said operation to completely rewrite said shared parallel server database; (paragraphs 0013, 0014, 0033, 0034, 0073, 0084, wherein the nodes contain data files to be stored and are connected to a backup storage means, and can be selected to rewrite the backup database for backup)

said selected node(s) obtaining information regarding directory location of said log for said plurality of nodes; (paragraphs 0039, 0040, 0041, wherein the backup directory file contains directory location for directory files and data files for data in the nodes)

setting said logs to be read/write accessible by said selected nodes; (paragraphs 0033, 0034, wherein the node can be given read-write access to the directory)

and completely rewriting database data files, control files and log in said shared parallel server database to said selected node(s) by accessing data in said shared parallel server database and also in said local redo logs to provide data to completely rewrite said shared database. (paragraphs 0033, 0034, 0052, 0081, 0083, 0084, 0085, 0086, wherein the backup database is completely rewritten with information from the nodes for backup purposes, and the backup data files in a node can contain backup information from backup data stored in the network file server containing backup data)

Whiting does not specifically disclose a local archived redo log for each node utilized in a database rewriting system.

Bamford teaches a local archived redo log for each node utilized in a database rewriting system (Figure 3, column 6 line 42 – column 7 line 20, column 10 line 23 –

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column 11 line 3, column 12 line 63 – column 14 line 9, wherein a redo log is provided to each node of a database system to track transactions to a centralized database)

It would have been obvious at the time of the invention for one of ordinary skill in the art to combine Whiting's method of backing up files on multiple nodes with a central backup server with Bamford's method of providing a log system to clients in a system that tracks information in a central database. This gives the user the advantage of being able to track changes made in a database with a distributed log system, to be able to utilize time stamps and roll over capabilities. The motivation for doing so would be to prevent loss of data when a database system failure occurs (column 2 lines 3-26).

As per claim 8, Whiting teaches said archived redo logs in local files on each of said nodes are set to be read and write accessible through mounting with a network file system (NFS), using the same name each of said nodes." (paragraphs 0033, 0034)

As per claim 9, Whiting teaches "said archived redo logs are created with names which allow a backup or recover utility to identify to which node an archived redo log belongs." (paragraphs 0042, 0045, 0055, 0085)

As per claim 10, Whiting teaches "before said step of completely rewriting database files, control files and said archived redo logs for said computer system, shutting down access to said shared parallel server database." (paragraph 0098, 0101, 0103)

As per claim 11, Whiting teaches "said operation to completely rewrite said shared parallel server database allows for a user- supplied scripts for shutting down access to said parallel server data." (paragraph 0098, 0101, 0103)

Response to Arguments

4. Applicant's arguments, see page 4, filed 2/17/2010, with respect to the rejection of claims 7-11 in regards to 35 USC 103(a) have been fully considered but they are not persuasive.

a. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-I]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

b. Applicant's arguments is stated as Whiting in view of Bamford does not specifically teach a shared parallel server and completely rewriting database data files, control files and archived redo log in said shared parallel server to said selected nodes by accessing data in said shared parallel server database and also in said local redo logs to provide data to completely rewrite said shared parallel server database

In regards to the argument, examiner respectfully disagrees. As disclosed above, the prior art of Whiting teaches that a plurality of nodes can access a

common network file server containing backup storage, as well as contain a backup log to track backup information (Figure 2, 3). As disclosed in paragraphs 0013 and 0014 of Whiting, multiple nodes are connected to a common backup storage means, and the backup means receives and sends data to the multiple nodes. This is further disclosed in paragraph 0033 and 0128 of Whiting, wherein the nodes communicate with the backup storage means in the server through a shared-file environment, and that users can concurrently backup data files in the backup storage means, interpreted by the Examiner to mean that Whiting discloses a network file server with a backup storage means that is connected to a plurality of nodes, the multiple nodes being able to access the backup storage means.

As to the argument that Whiting does not teach completely rewriting database files, control files, and archived redo log in said shared parallel server database to said nodes, Examiner respectfully disagrees. Whiting teaches in paragraphs 0033 and 0034 that backup data information is shared between nodes and the backup storage in the server, wherein backup information can be migrated from the backup storage in the server to the nodes. This is further disclosed in paragraphs 0052, wherein the backup data file in a node can contain data from previous backups stored in the backup storage means of the server. Furthermore, this ability of Whiting to share backup information between the backup storage in a server and in nodes is utilized to store complete backup information in the backup storage means of a server, as disclosed in the

limitation that recites “to provide data to completely rewrite said shared parallel server database”, which as shown above, is interpreted to be the common network file server containing backup storage means. Therefore, Whiting teaches a shared parallel server and completely rewriting database data files, control files and archived redo log in said shared parallel server to said selected nodes by accessing data in said shared parallel server database and also in said local redo logs to provide data to completely rewrite said shared parallel server database

c. Applicant’s argument is stated as Whiting in view of Bamford does not teach a local archived redo log for each node utilized in a database rewriting system.

In regards to the argument, Examiner respectfully disagrees. As disclosed above, Bamford teaches that changes in data stored in a database are tracked in a log, and that a data dictionary is used to track database data, as disclosed in Figure 3 and column 6 line 42 – column 7 line 20. For each subset of clients, a cache buffer is maintained containing changes to the data, stored as a log. As further disclosed in column 10 line 23 - column 11 line 3, the log entries stored in the cache buffers related to clients maintain change information. Specifically, the ability of Bamford to maintain multiple logs containing change information is incorporated into the prior art of Whiting that teaches backing up files from multiple nodes on a common, accessible server to teach the limitations of claim 7. As interpreted by the Examiner, the clients are able to contain its own local log that tracks changes, utilizing the prior art of Bamford, which is then utilized in a

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system having a plurality of nodes accessing a backup storage means in a common server to perform backup to the server. Therefore, Whiting in view of Bamford teaches a local archived redo log for each node utilized in a database rewriting system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANGELINO N. GORTAYO whose telephone number is (571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dangelino N Gortayo/
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